

ABSTRACT

ACTIVE MATRIX LIQUID CRYSTAL DISPLAY DEVICES

5 An active matrix liquid crystal (LC) display device, comprising in a display area (25) an array of picture elements (12) each having a picture element electrode (15) which together with an opposing common electrode (24) defines an LC display element (21) and a storage capacitor (20) connected to the picture element electrode, includes adjustment means
10 10 for adjusting drive signals applied by a drive circuit (35) to the picture elements (12) in accordance with changes in the LC capacitance. The adjustment means comprises an oscillator circuit (40) which is coupled to at least some of the picture elements in the array and whose oscillation frequency is determined by a capacitance associated with those picture
15 15 elements and dependent on the capacitances of their LC display elements. The oscillator circuit may be coupled, via switch means (50,61,72), to a storage capacitor line (22) interconnecting the storage capacitor (20) of the picture elements (12) or to the common electrode (24). The oscillator circuit may be integrated on a substrate of the device, together with the picture
20 20 element drive circuitry (35).